

February 21, 2019

Senator Norm Needleman, Senate Chair  
Representative David Arconti, House Chair  
Energy and Technology Committee  
Legislative Office Building, Room 3900  
Hartford, CT 06106

**Re: NECEC Testimony for Public Hearing on Thursday, February 21, 2019**

Dear Chairmen Needleman and Arconti and Members of the Committee:

The Northeast Clean Energy Council (NECEC) appreciates the opportunity to submit written testimony on the legislation being heard during the Energy and Technology Committee's public hearing on Thursday, February 21, 2019. While still largely in concept form, the bills slated for review include promising proposals with important implications for Connecticut's energy future. NECEC urges the Committee to continue its steadfast support for renewable and clean energy and energy efficiency, and we look forward to collaborating with you and your fellow members in 2019 to help Connecticut achieve its clean energy and carbon reduction goals. We thank the Committee in advance for thoughtfully considering each piece of legislation.

NECEC is a clean energy business, policy, and innovation organization whose mission is to create a world-class clean energy hub in the Northeast, delivering global impact with economic, energy, and environmental solutions. NECEC is the only organization in the Northeast that covers all of the clean energy market segments, representing the business perspectives of investors and clean energy companies across every stage of development. NECEC members span the broad spectrum of the clean energy industry, including energy efficiency, wind, solar, energy storage, microgrids, fuel cells, biomass, and advanced and "smart" technologies. Many of our members are already doing business in Connecticut, and many more are interested in doing so in the near future.

NECEC is pleased to offer its recommendations and positions on the following pieces of legislation.

**I. SUPPORT: H.B. No. 5002 – *An Act Concerning the Development of a Green New Deal***

NECEC is extremely pleased to see Connecticut embrace the concept of a Green New Deal through the strong legislative coalition that has put forward this initial proposal. We view it as absolutely essential that proposals focus on the clean energy economy development opportunities that come hand in hand with the massive energy transition we need to make, and that our energy and climate policymaking match the scale of the challenge before us. This appears to be embodied by the Green New Deal platform. Other states in the region, such as New York and Maine, are also looking at the framing of a Green New Deal as the banner that recognizes the linkages among the multiple critical clean energy, economic and climate efforts underway and planned for the future. Each state may have different points of emphasis within their respective Green New Deal platforms, reflecting their unique energy mixes, domestic resources, economic development priorities, emissions challenges, and more.

However, policymakers must not in the process overlook improvements to existing initiatives. Instead they must prioritize corrective action to improve current programs and policies in parallel with new proposals that codify more sweeping and ambitious long-term proposals. For Connecticut, that means that a Green New Deal can only start with an honest assessment of legislative action in recent sessions, most notably the energy efficiency fund raids and ratepayer impact statement provisions passed in 2017 (PA 17-144), and the substantial solar/net metering changes enacted in 2018 (PA 18-50, SB9), which are undermining the very economic, energy and environmental goals Connecticut has long espoused and the Green New Deal intends to achieve. Whether as part of a Green New Deal package or via separate vehicles, it is imperative that this Committee and the General Assembly take action to substantially correct these recent actions, which threaten disproportionate harm for the two work-horses of the Connecticut clean energy economy – energy efficiency jobs and solar jobs (particularly, residential solar). To take action on a Green New Deal without addressing these critical near-term issues would run counter to the core tenets of economic development and renewable energy adoption and choice.

With this in mind, NECEC strongly recommends that the Committee prioritize inclusion of the following policy priorities in any forthcoming Green New Deal package:

**A. Undo Harmful Solar Policy Changes in P.A. 18-50 to Protect Jobs and Customers:**

With drastic changes set to take effect later in 2019, implementation of policy changes from Public Act 18-50 threatens to substantially up-end the state's solar workforce and limit customers' ability to pursue solar in the future. The General Assembly must intercede to undo changes from last session and put the state back on a course to sustained, orderly solar and renewable energy growth.

New legislation should first pause PURA's implementation of Section 7 of P.A. 18-50, and reinstate existing programs. The regulatory process unfolding at PURA has been rushed and will produce unintended consequences, including delays to enable utility implementation that may take up to two years. The proceedings should be put on hold before substantial changes are triggered in mid- to late-2019. *We emphasize that it is insufficient to simply provide additional time to the PURA proceedings underway, as PURA cannot change the "buy-all, sell-all" and sub-daily netting constraints locked-in by SB9/P.A. 18-50, which are essentially unworkable in the time frame needed to avoid significant negative consequences for customers and solar jobs.* Connecticut should recognize that its solar policies have been successful in beginning to build the foundation for the clean energy economy that benefits all customers and as such should be continued until the Green New Deal policies and programs can be put in place, including a reinstatement of net metering, an expansion of the Green Bank's RSIP Program by 100 MW, and a two-year extension of the commercial LREC/ZREC program. Continuation of these programs will preserve the well-being of Connecticut's solar industry and the benefits it is providing to Connecticut's economy until an independent study is done, evaluating the value of solar and the benefits and costs of net metering, the best policies and programs in other states to reform net metering, and whether or not other changes are warranted in Connecticut.

In addition, legislation should include elements that provide for sustained, orderly growth in the future with increased program capacity. P.A. 18-50 put arbitrary caps on commercial solar and fuel cell investment that will restrict development. Removing

project size restrictions and increasing the annual caps from 50 MW to 200 MW for commercial projects, from 25 MW to 50 MW for shared clean energy projects, and from 10 MW for low emission projects, will increase opportunities for customers to adopt and benefit from clean energy.

**B. Restore Energy Efficiency Funds and Safeguard Against Future Diversions:**

Energy efficiency is the cleanest and cheapest way to meet Connecticut's energy needs, save customers money, and create local jobs. Although Connecticut boasts 34,743 energy efficiency-related jobs<sup>1</sup> and a #5 ranking from the American Council for an Energy Efficient Economy (ACEEE),<sup>2</sup> the Connecticut General Assembly in 2017 raided \$63.5 million from the Energy Conservation and Load Management Fund (Energy Efficiency Fund), \$14 million from the Clean Energy Fund (Green Bank), and \$10 million from Regional Greenhouse Gas Initiative (RGGI) proceeds from budget years 2018 and 2019. This unacceptable setback for customer savings, greenhouse gas emission reductions, and clean energy jobs must be reversed in 2019. Any Green New Deal package must prioritize the restoration of efficiency and clean energy funds, and prohibit any future diversion of budgets. This means that the Legislature must protect the Energy Efficiency, RGGI, and Green Bank funds from future raids and, to the greatest extent possible, undo the raids from the 2017 session. In addition, the Legislature should coordinate with the Lamont Administration to resolve the pending lawsuit over the raids and preserve the funds for their original purposes, especially following the Governor's announcement of full funding for energy efficiency in his February 20 budget address.

**C. Expand "Lead by Example" Energy Efficiency Program Efforts:** Please see further comments below under H.B. 5789.

**D. Establish an ambitious mandate for offshore wind procurement, and pursue additional Class I solicitations:** With neighboring states recently announcing substantial offshore wind commitments, Connecticut must codify its intent to become an offshore wind leader as well. Establishing a strong commitment to offshore wind will deliver a wide array of benefits, ranging from cost reductions and winter reliability to in-state jobs and port infrastructure upgrades. Results from other recent Class I RFPs around the region also demonstrate substantial opportunities for large-scale onshore renewable investment as well. The Green New Deal package should include as a major pillar the establishment of an offshore wind procurement mandate to achieve 2,000 MW by 2030. While Connecticut has taken some positive steps to procure offshore wind through existing authority (300 MW so far), it has not pursued the large-scale development necessary to meet its ambitious climate and economic development goals. In contrast to neighboring states that have made robust long-term commitments to offshore wind (e.g., MA, NY, NJ), Connecticut needs a strategy to expand this important clean energy resource. Legislation should direct DEEP to establish a procurement mandate of and solicit competitive bids for 2,000 MW of offshore wind. Soliciting offshore bids at this scale will enable Connecticut to take advantage of this increasingly cost-effective resource (e.g., MA contracts at \$0.065/kWh). These efforts should be in addition to continued solicitations for Class I renewables, which have also demonstrated highly competitive offerings.

<sup>1</sup> E2's Energy Efficiency Jobs in America report, available online at: <https://www.e2.org/wp-content/uploads/2018/09/CONNECTICUT-Dist.pdf>.

<sup>2</sup> <https://aceee.org/state-policy/scorecard>.

**E. Support removal/refinement of the 2017 “ratepayer impact statement” provisions:**

Public Act 17-144 requires the Office of Fiscal Analysis (OFA) to prepare a ratepayer impact statement for any bill before the General Assembly that would have a fiscal impact on electric ratepayers. While the law requires evaluation of costs, it does not require consideration of fiscal benefits, which may outweigh costs. In addition, requiring a ratepayer impact statement would be unduly burdensome, difficult to implement, and add unnecessary administrative cost as state agencies such as the Public Utilities Regulatory Authority (PURA) already provide oversight of ratepayer costs. The Legislature must take action to remove or modify the “ratepayer impact statement” provisions, which otherwise threaten to undermine many core elements of the Green New Deal effort.

In summary, NECEC strongly supports the ongoing Green New Deal efforts around HB5002, and we encourage the Committee to move swiftly to advance a package of proposals with concrete language for each of the priorities outlined above.

**II. **OPPOSE:** H.B. No. 5381 – *An Act Redefining “Class II Renewable Energy Source”***

NECEC opposes the addition of existing, higher-emitting trash-to-energy facilities to Connecticut’s Class II Renewable Portfolio Standard (RPS).

**III. **SUPPORT:** H.B. No. 5789 – *An Act Concerning the Lead by Example Program***

The Legislature should support and advocate for continuation and expansion of the state’s Lead by Example energy efficiency program, which is needed to meet the most basic principles set forth in the Governor’s Green New Deal platform (i.e., those envisioning state and municipal entities leading at the forefront of the energy transition). Greater Lead by Example commitments will cut both government expenses and environmental impacts by (1) reducing energy consumption in state buildings 40% by 2030, (2) converting state vehicles to zero emission for 50% of light duty and 30% for buses by 2030, (3) ensuring proper building codes for energy and transportation-related measures, and (4) implementing a pilot carbon charge across state buildings and vehicles. These elements should all be prioritized as part of a Green New Deal package and through this standalone vehicle.

**IV. **SUPPORT:** H.B. No. 6237 – *An Act Requiring a Study of Energy Storage Projects and Distributed Generation in the State***

We strongly support an undertaking to rigorously analyze the benefits of deploying energy storage in Connecticut, along with further analysis of greater distributed generation (DG) deployment. Comparable studies of energy storage have kicked off substantial energy storage activity in neighboring states, including the *State of Charge* report in Massachusetts,<sup>3</sup> and the *Energy Storage Roadmap* process in New York.<sup>4</sup> Both of these efforts serve as strong examples of the impact analytical work can have in highlighting the magnitude of the benefits and savings that storage can offer and in convincing policymakers, both legislative and administrative, about needed policy changes. Massachusetts’ *State of Charge* study revealed and confirmed startling

<sup>3</sup> <https://www.mass.gov/files/2017-07/state-of-charge-report.pdf>.

<sup>4</sup> <https://www.ethree.com/wp-content/uploads/2018/06/NYS-Energy-Storage-Roadmap-6.21.2018.pdf>.

findings, including that 8% of electric ratepayer expenditures each year occur during the top 1% of hours, and that 40% of electric ratepayer expenditures each year occur the top 10% of hours. A study of energy storage in Connecticut will undoubtedly reveal similar results, confirming the importance of energy storage as “the only technology that can use energy generated during low cost off-peak periods to serve load during expensive peak periods, thereby improving the overall utilization and economics of the electric grid.”<sup>5</sup> We recommend that any study of energy storage include a comprehensive storage opportunity analysis, to evaluate and quantify the potential benefits that energy storage distributed across Connecticut’s electric grid can provide ratepayers. Specifically, modeling should be conducted to determine the amount of advanced storage in MWh and MWh to be added over the next 5 and 10 years that will provide maximum benefit to ratepayers; the distribution of energy storage locations across Connecticut where adding storage will achieve maximum benefits to the ratepayers; quantification of the reduction in GHG emissions that can be achieved with the optimum level of energy storage deployments across the state; and savings that will be reaped by customers (and the grid) through adoption of storage on their own premises. NECEC would be glad to provide the Committee with further information and recommendations on energy storage.

**V.      *SUPPORT: H.B. No. 6240 – An Act Requiring the State Building Code to Have Requirements to Improve Energy Efficiency***

We strongly support adoption of updated state building and electric codes to capture advancements in and elevated rigor for energy efficiency opportunities, including through the adoption of net zero stretch energy codes. This concept bill should also place an emphasis on updates to the building code to provide for EV-ready construction and wiring, which will greatly serve to facilitate the adoption of EV charging infrastructure (and the resulting EV utilization).

**VI.     *SUPPORT: H.B. No. 7016 – An Act Concerning the Conservation and Load Management Plan and the Installation of Heat Pumps***

It is urgent that heat pumps and other forms of strategic or beneficial electrification for the building sector be incorporated into the Conservation and Load Management Plan. Massachusetts recently approved<sup>6</sup> a new three-year energy efficiency plan with explicit authorization and deployment metrics for electric heat pump adoption, including use of rebates and incentives to buy down the cost of installation. While heat pump use will increase kWh of electricity used for thermal purposes (which may initially seem counterintuitive for an energy efficiency program), the use of efficient electric technologies for heating will mean a substantial net reduction in MMBTUs (a fuel neutral measure of energy consumption) and greenhouse gas emissions.

**VII.    *SUPPORT: H.B. No. 7114 – An Act Concerning Municipal Competitive Procurement of Electricity, Natural Gas, Renewable Energy and Other Energy-related Products by Nonprofit Energy Buying Consortia***

NECEC offers its strong support for HB7114, which will provide the opportunity for multiple municipalities and state agencies to take advantage of a streamlined competitive procurement for energy supply and other energy-related products and services. Under the bill, such

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<sup>5</sup> *State of Charge*, page ii.

<sup>6</sup> See DPU Order in docket 18-119 here:

<https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/10317070>; see also original plan filing here: <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/9998898>.

procurements will be conducted by a non-profit energy-buying consortium, such as PowerOptions, registered as a PURA approved-aggregator, on municipalities' behalf. This efficient approach will save public entities the extensive time and money they would otherwise have spent conducting their own procurement(s), offering much needed savings in the current budget-constrained environment and allowing them to focus their time and resources on their core missions – serving their communities.

Enabling competitively procured, aggregated supply arrangements will unlock multiple benefits for participating public entities. First, procurements conducted on behalf of an aggregation can provide better competition and attract multiple respondents. Suppliers want access to multiple customers and the larger associated amount of energy they use versus one customer. Aggregation reduces suppliers' customer acquisition costs, which can be used to enhance competitiveness and allow for a lower price for aggregation members. In addition, the type of procurements enabled by HB7114 is more likely to attract well-established suppliers that can demonstrate their capacity to serve an aggregation. This is important, as there are many suppliers in the market, but not all have the financial stability to serve the customers they contract with through the volatility of the energy markets. Suppliers themselves would rather save the time and money of responding to a single large procurement than multiple smaller procurements. An aggregation also can leverage the size of the multiple participants to obtain better pricing and contract terms and conditions than what a municipality or state agency could obtain on its own. Suppliers are facing ever-increasing competition in the market and are willing to make concessions to obtain access to the volume of sales that an aggregation offers. This has been the experience of certain NECEC members over the past 20 years of conducting procurements on behalf of similar consortia in other states.

Importantly, HB7114 does not prohibit public entities from conducting their own individual procurements. If they prefer, they can continue to do business as they have always done. This legislation simply offers an alternative option, one that allows public entities to take advantage of aggregated procurement expertise without expending resources required to conduct their own solicitation. Whether large or small, all public entities would see the same benefits and savings of participating in an energy-buying consortium. In addition, all members of the aggregation benefit similarly, structured so that each member's price is based on their own individual load profile and no cross-subsidization takes place.

#### **VIII. SUPPORT: S.B. No. 220 – *An Act Concerning Certain Solar Power Facilities and Net Metering Credits for Municipalities Where Such Facilities Are Located***

The concept description provided for this bill states that it seeks to “allow any municipality with a solar power facility located in such municipality that gives credits to other municipalities to receive thirty per cent of any net metering credits generated by such a solar power facility.” While this is an interesting concept, we are unsure of where the discretion would lie in allocating this thirty per cent. In other words, would the developer of a project be *required* to allocate thirty percent of the net metering credits to the municipality in which the project is located? If so, we would suggest that such a framework would be too restrictive, removing flexibility to i) appropriately size the project to meet the interest and demand of the municipality driving the installation of the project, and ii) negotiate with all municipalities and other eligible off-takers for net metering credit arrangements and savings discounts on a level playing field. Perhaps of most importance, we want to gain confirmation that the bill is not intending to allocate “free” net metering credits to the local municipality. Instead of requiring any allocation (free or otherwise), it would be better to offer the project developer the *option* of allocating up to thirty percent of the

net metering credits to the host municipality, especially if this thirty percent is not subject to the virtual net metering caps/budgets. In fact, NECEC strongly supports an expansion or elimination of the virtual net metering cap this session, which would greatly serve to facilitate lead-by-example project pursuits by all eligible state, municipal, and agricultural customers, and perhaps address the intent of this bill.

**IX. SUPPORT: S.B. No. 468 – *An Act Concerning the Installation of Solar Panels on State Land Near Public Highways***

We strongly support this proposal to allow the installation of publicly or privately owned solar panels on state-owned land in proximity to public highways. This model has achieved great success in neighboring Massachusetts, where Massachusetts Department of Transportation (MassDOT) parcels adjacent to Interstate-90 and other highways that would otherwise lie fallow are instead put to productive use for the installation of solar panels. The appropriate Connecticut departments and agencies should be charged with undertaking the same effort, which will involve cataloging the best parcels for potential development and putting those lands out to bid for third-party providers to compete for. There will be very strong interest from the solar industry, especially if agencies can take explicit steps to coordinate and expedite permitting and review processes for winning bidders.

**X. SUPPORT WITH MODIFICATIONS: S.B. No. 600 – *An Act Concerning Energy Storage Resources and Wind and Large-Scale Hydropower Facilities***

This bill concept description states that the bill seeks to “require the leveraging of existing energy storage resources in programs for future wind and large-scale hydropower facilities.” While we are not sure if energy storage resources are defined in Connecticut statute, we expect that the intent of this bill is to leverage existing large storage resources, such as pumped hydropower assets in the region. While this is a worthy purpose, we recommend that any bill seeking to leverage energy storage technologies in renewable energy programs and procurements be open for competition by any and all energy storage resources, both existing and proposed. This would maximize storage opportunities and recognize newly proposed advanced energy storage technologies whose addition to the grid would bring incremental energy storage capacity and flexibility to Connecticut and the region. For both economic reasons (e.g., the federal PTC and ITC tax credits, which offer significant tax savings for storage co-located with renewable resources) and grid benefit reasons (e.g., local reliability improvements on the distribution system), programs and procurements for future large-scale renewable facilities should actively incorporate participation of energy storage resources, including new advanced energy storage resources that can add incremental capacity and flexibility to customers and the grid. We note that Connecticut has recently demonstrated a successful ability to do this, as several grid-scale solar projects selected<sup>7</sup> by DEEP in the recent zero-carbon RFP were combined solar-plus-energy storage resources.

**XI. SUPPORT: S.B. No. 845 – *An Act Concerning the Procurement of Energy Derived from Anaerobic Digestion***

NECEC strongly supports programs and procurements to directly promote the installation and production of anaerobic digestion resources, which stand to deliver significant renewable energy benefits and address environmental impacts in symbiosis with the energy needs and natural by-

<sup>7</sup> <https://www.ct.gov/deep/cwp/view.asp?Q=607002&A=4965>.

products of farms and other agricultural facilities. Connecticut has already demonstrated experience procuring certain anaerobic digestion resources in a 2017-2018 RFP,<sup>8</sup> but more can and should be done to promote greater adoption and deployment and, by result, greater benefits reaped by Connecticut farmers.

## Conclusion

NECEC greatly appreciates the Committee's consideration of this testimony as part of its deliberations on the bills heard during the public hearing on February 21, 2019. We extend our strong support for the Committee's efforts around the Green New Deal package and the individual proposals we support above, along with modifications to improve or reject less favorable proposals. We are available to discuss any portions of our testimony in greater detail, and we encourage the Committee to consider NECEC a resource on clean energy as the Committee reviews these and other renewable energy and energy efficiency related bills in the future.

Sincerely,



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<sup>8</sup> <https://www.ct.gov/deep/cwp/view.asp?A=4965&Q=603300>.